

REMARKS

Claims 37, 38 and 40 are amended. Claims 39, 41 and 52-53 are cancelled. Claims 37-38, 40 and 42-51 are pending in the application.

Claims 37-40, 42, 43, 46, 47, 50 and 51 stand rejected under 35 U.S.C. § 102(b) as being anticipated by "Development of a Submicrometer-Grained Microstructure in Aluminum 6061 Using Equal Channel Angular Extrusion" (*Development*). As set forth in MPEP § 2131, anticipation requires each and every element to be disclosed in a single prior art reference. Claims 37, 38, 40, 42-43, 46-47 and 50-51 are allowable over *Development* for at least the reason that *Development* fails to disclose each and every element in any of those claims.

As amended, each of claims 37, 38 and 40 recite a preliminary treatment followed by equal channel angular extrusion, the preliminary treatment utilizing a single heating event and comprising subjecting a cast material to homogenization, hot forging and solutionizing. The amendment to claims 37, 38 and 40 is supported by the specification at, for example, page 6, line 31 through page 7, line 15. *Development* discloses cutting billets from an extruded aluminum bar followed by annealing and aging treatments (page 1254, section 2). *Development* does not disclose the claim 37, 38 and 40 recited preliminary treatment of a cast material utilizing a single heating treatment and comprising homogenizing, hot forging and solutionizing. Accordingly, independent claims 37, 38 and 40 are not anticipated by *Development*. Further, *Development* does not suggest this recited feature and independent claims 37, 38, and 40 are not rendered obvious by *development*.

Dependent claims 42-43, 46-47 and 50-51 are allowable over *Development* for at least the reason that they depend from corresponding allowable base claims 37 and 40.

Claims 44-45 and 48-49 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of *Development* and "Stress-Relief Heat Treating of Steel" (*Stress Relief*). In accordance with MPEP § 2143, a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 44-45 and 48-49 are allowable over the combination of *Development* and *Stress Relief* for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every element in any of those claims.

As discussed above, independent claim 37 is not anticipated by or rendered obvious by *Development*. As indicated at page 5 of the present Action, *Stress Relief* is relied upon as disclosing recovery annealing. As combined with *Development*, the annealing process disclosed by *Stress Relief* does not contribute toward suggesting the claim 37 recited preliminary treatment of a cast material utilizing a single heating event for processing by homogenization, hot forging and solutionizing. Accordingly, independent claim 37 is not rendered obvious by the combination of *Development* and *Stress Relief* and is allowable over these references. Dependent claims 44-45 and 48-49 are allowable over *Development* and *Stress Relief* for at least the reason that they depend from allowable base claim 37.

Claims 41 and 52-53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Development* in view of Segal, U.S. Patent No. 5,513,512. Without

admission as to the propriety of the Examiner's rejection, claims 41 and 52-53 are cancelled.

For the reasons discussed above, pending claims 37-38, 40 and 42-51 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

Respectfully submitted,

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By: Jennifer J. Taylor
Jennifer J. Taylor, Ph.D.
Reg. No. 48,711